The Technique of Electrochemical Deposition of Cobalt-Tungsten Alloy and Its Properties

75669
SOV/80-32-10-18/51

deposit (65% Co and 35% W) on a surface of identical composition. The investigated Co-W deposits showed a considerably higher resistance than cobalt and nickel to the corrosive action of 1:1 concentration of sulfuric, nitric, and hydrochloric acid as well as to NO_2 and SO_2.

The deposit containing 35% W resisted well the corrosive action of 3% NaCl solution at room temperature, and it dissolved at a very low rate (0.1 g/m^2 per 24 hrs).

There are 2 tables; 12 figures; and 6 references, 1 U.S., 1 British, 4 Soviet. The U.S. and British references are: J. Research Nat. Bur. Stand., Oct. (1947); The Engineer, 185, 4805 (1948).

SUBMITTED: September 19, 1958

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87664

5.1310 1087, 1018, 1208

S/137/60/000/010/040/040
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 10, p. 315, # 24982

AUTHORS: Fedot'yev, N.P., Vyacheslavov, P.M., Kruglova, Ye.G., Andreyeva, O.P.

TITLE: Electrochemical Deposition of Co-Tungsten Alloy and its Properties

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1959, No. 53, pp. 82-97

TEXT: It is shown that the composition of the Co-tungsten deposit depends to a high degree on the metal concentration ratio in the electrolyte, since a higher tungsten/cobalt ratio causes a higher tungsten content in the deposit, although current efficiency decreases. At a concentration of $(NH_4)_2SO_4$ raised from 10 to 150 g/liter in the electrolyte, the tungsten content in the deposit increases from 7 to 26%. The current efficiency changes along the curve with a maximum at a concentration as high as 150 g/liter and furthermore drops. A higher $D_{cathode}$ increases the tungsten amount in the deposit; however, the quality of the deposit deteriorates; the luster disappears, and roughness appears. At a

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S/137/60/000/010/040/040
A006/A001

Electrochemical Deposition of Co-Tungsten Alloy and its Properties

higher electrolyte temperature a gradual increase of the tungsten percentage in the alloy takes place. The current efficiency increases noticeably. It is established that the dispersing capacity of the electrolyte for the deposition of the cobalt-tungsten alloy exceeds by 10 - 15% that of the Ni-electrolyte. The authors studied the dependence of microhardness of the deposited cobalt-tungsten alloy on various factors of electrolysis. Investigations of the wear resistance of cobalt-tungsten alloy coatings in pair with Ni and in pair with the same alloy showed that it was higher in the latter case than during wearing in pair with Ni. It was stated that the cobalt-tungsten deposit was sufficiently corrosion-resistant in SO_2 and NO_2 atmosphere. The composition of the electrolyte for the deposition of an alloy with 35% tungsten is given.

N.I.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

LI UN-SOK; ROTINYAN, A.L.; FEDOT'YEV, N.P.

Simultaneous discharge of zinc and hydrogen ions. Trudy LTI no.53:98-101: '59. (MIRA 14:3)
(Zinc) (Electrolysis)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; KRUGLOVA, Ye.G.; ANDREYEVA, G.P.

Electrolytic deposition of a cobalt-tungsten alloy and its properties. Trudy LTI no.53:82-97 '59. (MIRA 14:3)
(Cobalt-tungsten alloys--Electrometallurgy)
(Electrolysis)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; KRUGLOVA, Ye.G.; FONTEYNES, Ye.A.

Technology of ekectrolytic Sn-Cd deposition and its corrosion resistance in near tropical conditions. Trudy LTI no.53:72-81 '61. (MIRA 14:3)

(Tin plating) (Tin-cadium alloys)
(Corrosion-resistant materials)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; KRUGLOVA, Ye.G.; RUDNEVA, V.P.

Electrolytic deposition of tin-zinc alloys. Trudy LTI no.53:64-71 '59. (MIRA 14:3)
(Tin plating) (Tin-zinc alloys)
(Corrosion-resistant materials)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; KAREL'SKAYA, V.F.; YUDILEVICH, S.R.

Measuring the porosity of chromium coatings by the embedding of mercury. Trudy LTI no.53:51-52 '59. (MIRA 14:3)
(Chromium plating--Testing)(Porosity--Testing)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; BARDIN, V.V.

Effect of various factors on the deposition process and the properties of electrolytic chromium. Trudy LTI no.53:43-50 '59. (MIRA 14:3)

(Chromium plating) (Electrolysis)

FEDOT'YEV, N.P.; ALESKOVSKIY, V.B.; VYACHESLAVOV, P.M.; VOLOKHONSKIY, N.V.; ROMANOVA, D.L.

Microhardness and degree of surface purity of electrolytic cobalt. Trudy LTI no.53:37-42 '59. (MIRA 14:3)
(Cobalt) (Electrolysis)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.

Electrochemical deposition of nickel of increased hardness.
Trudy LTI no.53:30-36 '59. (MIRA 14:3)
(Nickel plating)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; GURVICH, O.M.

Microhardness of nickel coatings and its relation to surface microgeometry. Trudy LTI no.53:23-29 '59. (MIRA 14:3)
(Nickel plating) (Hardness)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; POLYAKOV, G.S.

Degree of dispersion of copper powder in the electrolysis of hydrochloric solutions. Trudy LTI no.53:18-22 '59. (MIRA 14:3)
(Powder metallurgy) (Cooper--electrometallurgy)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; ZHILINA, L.P.

Effect of various factors on the hardness of copper deposited from a cyanide electrolyte. Trudy LTI no.53:13-17 '59. (MIRA 14:3)

(Copper--Electrometallurgy)
(Hardness)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.

Grain size and microhardness of electrolytic copper. Trudy LTI no.53:9-12 '59. (MIRA 14:3)
(Copper--Metallography)
(Copper--Electrometallurgy)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.

Effect of peening on the microhardness of electroplated coatings.
Trudy LTI no. 53:3-8 '59. (MIRA 14:3)
(Electroplating—Testing)
(Metals—Cold working)

5.4600

77641
SOV/80-33-2-16/52

AUTHORS: Fedot'yev, N. P., Khonikevich, A. A.

TITLE: Internal Stress in Electrolytic Deposits of Zinc Obtained From Sulfate Electrolytes

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 2, pp 355-362 (USSR)

ABSTRACT: The authors studied effect of electrolysis conditions (current density, pH of the electrolyte, and concentration of additives) upon the properties of electrolytic precipitates of zinc (internal stress, microhardness, cathode potential, and cathodic yield based on current). The method for determining cathode sagging (which is the measure of internal stress) is shown in Fig. 1 (brass plates (brand L-67) of dimensions 75 x 16 x 1.1 mm were used as cathodes). Internal stress, σ was calculated by the formula:

$$\sigma = \frac{4}{3} \cdot \frac{E \cdot (h+t)^3 \cdot f}{l^2 \cdot h \cdot t} \ [kg/mm^2]$$

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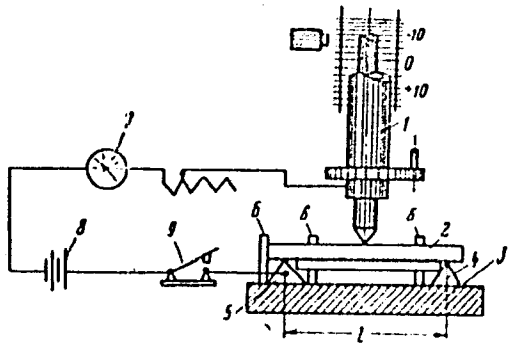
Internal Stress in Electrolytic Deposits of Zinc Obtained From Sulfate Electrolytes

77641
SOV/80-33-2-16/52

Fig. 1. Schematic diagram for measuring cathode sagging. (1) optical indicator; (2) cathodic plate with the precipitate; (3) table; (4), (5) plate supports; (6) arresting devices; (7) milliampermeter; (8) battery; (9) switch.



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where f - depth of curvature of the cathode (in mm), h - thickness of the plate (in mm), t - thickness of the plating layer (in mm), l - base (in mm) - distance between the plate rests (4), (5) in Fig. 1). Microhardness was tested on the hardness gage (of the type PMT-3) of M. M. Krushchov and Ye. S. Berkovich [Microhardness Determined by the Depression Method (Mikrotverdost', opredelyayemaya metodom vdavlivaniya), AN SSSR (1943)]; satured calomel electrode was used as a standard in measurements of cathode potentials. Figures 2 and 3 show the effect of current density and of pH upon the properties and yield of zinc precipitate in the electrolyte of composition (in g/l): $ZnSO_4 \cdot 7H_2O$ - 240, $Al_2(SO_4)_3 \cdot 18H_2O$ - 30, $KAl(SO_4)_2 \cdot 12H_2O$ - 50, $Na_2SO_4 \cdot 10H_2O$ - 120 at room temperature and pH = 3.5. Thickness of the zinc precipitate varied from 25 to 30 μ in all experiments. Current density interval D_K = 0.75 - 1.25 amp/dm^2 (and pH 3.5) which is the region of maximum cathodic yield and minimum microhardness, is most favorable for the metal deposition. With an increase in pH the magnitudes of all

investigated quantities (H, ϵ_K and σ), except the cathodic yield, decrease. Deposits of good appearance are obtained only in the pH interval of 3.5-4.3. Addition of colloidal or surface-active materials (dextrin, gelatin, glucose, glycerine, and α-nitroso-β-napthol) (at D_K = 1 amp/dm^2 and pH = 3.6) increases cathode potential, internal stress, and microhardness of the deposits, while the cathodic yield based on current decreases slowly with increasing concentration of the additive. When phenol is used as an additive, the curves for H and σ have a maximum at the concentration of 5-7g/l. In all cases it was the compressive internal stress (tendency to expand) that appeared in compressed zinc deposits, rather than the tensile stress (tendency to compress) typical for deposits of other metals (chromium, nickel, copper, iron), in which the structural (change of crystalline form or of lattice parameters) or mechanical (loss of hydrogen) changes cause expansion of the deposit in the process of electrolysis. There are 10 figures; and 13 references, 12 Soviet, 1 U.K. The U.K. reference is: Barklie Davis, The Engineer, 150, 670 (1930).

Fig. 2. Effect of cathodic current density D_K (in amp/dm^2) upon the internal stress σ (in kg/mm^2), microhardness H (in kg/mm^2), cathode potential ϵ_K (in v), and cathodic yield based on current η_K (in %).

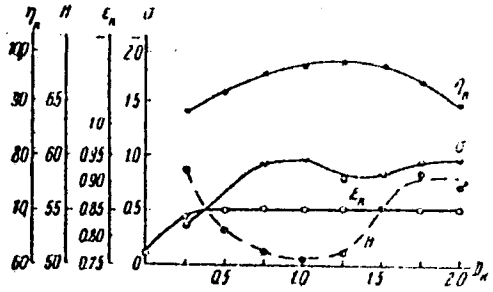

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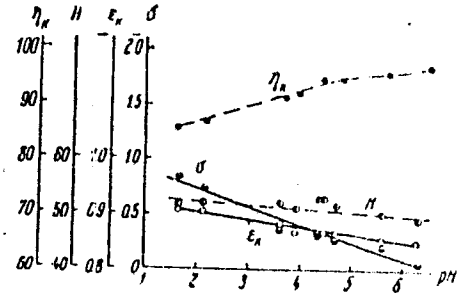
Fig. 3. Effect of pH of the electrolyte upon internal stress σ (in kg/mm^2), microhardness H (in kg/mm^2), cathodic yield based on current η_K (in %), and cathode potential ϵ_K (in v). (Cathodic current density D_K = 1 amp/dm^2).



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Internal Stress in Electrolytic Deposits of Zinc Obtained From Sulfate Electrolytes

77641
SOV/80-33-2-16/52

ASSOCIATION: Leningrad Lensovet Technological Institute, Department of Electrochemistry (Leningradskiy tekhnologicheskiy institut imeni Lensoveta, kafedra elektrokhimii)

SUBMITTED: May 14, 1959

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S/080/60/033/005/004/008

AUTHORS: Fedot'yev, N.P., Grilikhes, S.Ya., Zil'berman, B.Ya.

TITLE: Deep Anodizing of Aluminum at Room Temperature

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, No 5, pp 1133 - 1141

TEXT: Anodizing of aluminum in sulfuric acid at room temperature produces only thin films 10 - 15 μ thick. It is difficult to obtain films of 80 - 150 μ due to thermal processes taking place in the electrolysis. To obtain thick films, the current density must be increased and the H_2SO_4 concentration and the temperature of the electrolyte must be decreased. An increase in the current density causes heating of the solution, however. According to Kosha-Shomodi [Ref 1] the dissolution rate of the film increases logarithmically with an increase in temperature. Deep anodizing, therefore, depends on the degree of heat removal from the reaction zone. The heat can be removed through the metal to be anodized or through the electrolyte. The first method has been developed by Tomashov [Ref 2]. It consists in cooling the part under treatment by a cooling solution in its interior. The second method consists in cooling and mixing the electrolyte, the temperature of

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S/080/60/033/005/004/008

Deep Anodizing of Aluminum at Room Temperature

which is reduced to -5°C. The mixing is carried out by compressed air. Kosha-Shomodi recommends the use of 10 a/dm^2 and an electrolyte temperature of 10°C in order to obtain thick films in 15%-H_2SO_4. Intensive mixing of the electrolyte reduces the temperature of the anode due to the removal of the Joule effect. The effect of the tension was investigated at 500, 435 and 400 w/dm^2. It was shown that a constant current intensity shows a lower Joule effect and consequently lesser heating of the anode than the corresponding average constant current density. The use of intensive mixing of the electrolyte and a constant current intensity facilitate the production of oxide films of considerable thickness at a temperature of the solution of up to 20°C. A low electrolyte temperature and low H_2SO_4 concentration further the production of films with increased hardness but also with increased brittleness.
There are 8 graphs and 5 references: 4 Soviet and 1 English.

SUBMITTED: November 24, 1959

Card 2/2

FEDOT'YEV, N.P.; YAMPOL'SKIY, A.M.

Measurement of the adhesive strength of nickel coatings on aluminum and its alloys. Zhur. prikl. khim. 33 no.8:1844-1849 Ag '60. (MIRA 13:9)

(Nickel) (Aluminum) (Aluminim alloys)

1530
1472
2408

187300

83976

S/080/60/033/009/008/021
A003/A001

AUTHORS: Fedot'yev, N.P., Grilikhes, S.Ya., Foroponova, N.L.

TITLE: Anode Processes in Electrochemical Polishing of Aluminum

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 9, pp. 2079-2084

TEXT: The change in the potential of an aluminum anode depending on the conditions of the electrolysis was studied. The experiments were made with samples of aluminum sheet of the A0 (AO) grade with a thickness of 1 mm. Lead sheet served as cathode. The anode treatment of aluminum in a 10-30%-solution of sulfuric acid at a temperature of 16-22°C is accompanied by the formation of an oxide layer on its surface which is several tens of microns thick. A temperature increase leads to an increase in the dissolution rate of the film in the electrolyte. The anode treatment of aluminum in 85%-phosphoric acid at 70°C is accompanied by the formation of a whitish film consisting apparently of phosphates. In a mixture of sulfuric and phosphoric acids the periodical phenomena were observed within a narrower range and at lower current densities. The introduction of up to 4% of CrO_3 into the electrolyte produces a film of high luster. The effect of the temperature was investigated on an electrolyte containing 45%

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83976
S/080/60/033/009/008/021
A003/A001

Anode Processes in Electrochemical Polishing of Aluminum

H_3PO_4, 30% H_2SO_4, 4% CrO_3, 21% H_2O. It was shown that a temperature increase from 20 to 40°C leads to an increase in luster from 36 to 84%. The anode current density, if it surpasses a limit value, affects the reflecting power of the metal. There are 5 graphs and 7 references: 6 Soviet, 1 German.

SUBMITTED: February 22, 1960

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S/032/61/027/001/010/037
B017/B054

AUTHORS: Fedot'yev, N. P. and Yampol'skiy, A. M.

TITLE: Method of Determining the Cohesion of Galvanic Coats

PERIODICAL: Zavodskaya laboratoriya, 1961, Vol. 27, No. 1, pp. 45-46

TEXT: The authors developed a method for the quantitative determination of the cohesion of galvanic coats by determining the force needed to separate a nickel coat from an aluminum surface. The galvanic coat does not separate simultaneously on the entire surface but only at the separating lines between the galvanic coat and the metal. Metal is galvanically deposited on an aluminum sheet. Part of the aluminum sheet is etched off with 20% HCl. An apparatus determines the weight needed to detach the galvanic coat from the sheet remaining after etching. The method is suited for determining the cohesion of nickel and copper coats on metals and alloys, in particular Al and Al alloys. There are 2 figures.

ASSOCIATION: Kirovskiy zavod (Kirov Plant)

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23422
S/081/61/000/005/007/024
B110/B205

18 7400 M54,1087,1160

AUTHORS: Fedot'yev, N. P., Vyacheslavov, P. M., Kruglova, Ye. G., Fonteynes, Ye. A.

TITLE: Technology of electrochemical deposition of an Sn-Cd alloy and its corrosion resistance under tropicalized conditions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1961, 390-391, abstract 5K186 (5K186), ("Tr. Leningr. tekhnol. in-ta im. Lensoveta", 1959, vyp. 53, 72-81)

TEXT: An electrolyte having the composition (g/l): $Cd(BF_4)_2$ = 240-250; $Sn(BF_4)_2$ = 24-30; NH_4BF_4 = 50-60; HBF = 50-70; H_3BO_3 = 18-20; glue 0.5-1; D_K = 1.5-2a/dm^2, temperature 18-25°C, is recommended for use in depositing the alloy Cd-Sn (40-60 % Sn). The effect of D_K and of the concentration of the constituents on the composition and quality of the deposit have been studied. Optimum corrosion resistance at 25-100 % moisture and 20-60°C was exhibited by an alloy with 40-60 % Sn, which had been

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Technology of electrochemical...

passivated in a solution of H_2SO_4 = 5-10 g/l and $(NH_4)_2Cr_2O_7$ = 150 g/l.
[Abstracter's note: Complete translation.]

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FEDOT'YEV, N.P.; ROTINYAN, A.L.

"Electrolysis of sodium chloride solutions" by L.S.Genin. Reviewed by N.P.Fedot'ev, A.L.Rotinian. Zhur.prikl.khim. 34 no.7:1649-1650 Jl '61. (MIRA 14:7)

(Sodium chloride) (Electrolysis)
(Genin, L.S.)

FEDOT'YEV, N.P., prof.; IL'IN, V.A.; CHERNOZATONSKAYA, I.N.; YAMPOL'SKIY, A.M., kand. tekhn. nauk, red.; SHILLING, V.A., red.izd-va; GVIRTS, V.L., tekhn. red.

[Electrodeposition of silver from solutions of cyanide-free complex salts]Elektroosazhdenie serebra iz rastvorov netsianistykh kompleksnykh solei. Leningrad, 1962. 18 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Zashchitnye pokrytiia, no.8)
(MIRA 16:3)

(Silver plating)

FEDOT'YEV, N.P.

PHASE I BOOK EXPLOITATION SOV/6308

Fedot'yev, N. P., Doctor of Chemical Sciences, Professor, N. N. Bibikov, P. M. Vyacheslavov, and S. Ya. Grilikhes

Elektroliticheskiye splavy (Electrolytic Alloys) Moscow, Mashgiz, 1962. 311 p. 12,500 copies printed.

Reviewer: A. F. Alabyshev, Doctor of Technical Sciences, Professor; Ed.: A. L. Rotinyan, Doctor of Technical Sciences, Professor; Eds. of Publishing House: T. L. Leykina and M. A. Chfas; Tech. Ed.: M. M. Peterson; Managing Ed. for Literature on Machine-Building Technology, Leningrad Department, Mashgiz: Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for engineering personnel of plants, scientific research institutes, and design organizations. It may also be useful to students at schools of higher technical education.

Card ~~1/8~~ 1/2

Electrolytic Alloys SOV/6308

COVERAGE: The book reviews the theory and practices of depositing protective, protective-decorative, antifriction, heat-resistant, and other special alloy coatings. Considerable attention is paid to Soviet work in the field of electrolytic deposition of alloys. Experimental data obtained by the authors have been widely used in compiling the present book. The authors thank Engineers V. I. Gribel' and G. P. Andreyeva for their assistance. References follow each chapter.

TABLE OF CONTENTS:

Card ~~2/8~~ 2/2

FEDOT'YEV, N.P., prof.; ALABYSHEV, A.F.; ROTINYAN, A.L.; VYACHESLAVOV, P.M.; ZHIVOTINSKIY, P.B.; GAL'NBEK, A.A.; MORGACHEVSKIY, A.G., red.; ERLIKH, Ye.Ya., tekhn. red.

[Applied electrochemistry]Prikladnaia elektrokhimiia. Leningrad, Goskhimizdat, 1962. 638 p. (MIRA 15:12)
(Electrochemistry)

S/080/62/035/007/007/013
D214/D307

AUTHORS: Fedot'yev, N.P., Vyacheslavov, P.M. and Andreyeva, G.P.

TITLE: Structure and properties of electrodeposited Sn-Cd alloys

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 7, 1962, 1537-1542

TEXT: The structure and some properties of electrodeposited Sn-Cd alloys were determined and compared with those of the same alloys obtained by fusion. X-ray studies of 14 samples of the alloy, containing from 2.4 to 99% Cd, showed the lattice parameters to be close to the values obtained for the equivalent alloys prepared from melts. The Sn-Cd alloys, deposited from a KCN solution, crystallize in accordance with the phase diagram and contain Cd/Sn eutectics. Measurements of the potentials of the alloys in a 1N$CdSO_4$ solution against a standard calomel electrode also showed the alloys to behave as a eutectiferous mixture of Sn and Cd crystals. The micro-

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Structure and properties ...

hardness increases linearly from 13.2 to 33.8 kg/mm^2 and the specific resistance decreases linearly from 0.154 to 0.114 Ω mm/m as the Cd content increases. The resistivities of the electrodeposited alloys were about 25% higher than those of the equivalent alloys prepared from their melts. An increase in the Cd content causes the cathodic polarization to increase; the polarization curves for the simultaneous deposition of both metals lie in the more positive region than that in which curves for the deposition of the separate components are situated. There are 5 figures and 1 table.

SUBMITTED: September 22, 1961

Card 2/2

L 12677-63

ACCESSION NR: AP3000645 S/0080/63/036/003/0557/0565

EWP(q)/EWT(m)/BDS AFFTC/ASD JD

AUTHOR: Zil'berman, B. Ya.; Fedot'yev, N. P.; Grilikhes, S. Ya.

TITLE: Heat balance of the anodic process in the treatment of aluminum

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 3, 1963, 557-565

TOPIC TAGS: anodizing of aluminum, oxide formation

ABSTRACT: The process of formation of oxide films on the surface of aluminum during its anodic process is determined to a large extent by its thermal processes which can be quantitatively appraised through the calculation of heat balance. The calculation of the heat balance of these processes is performed by the usual method which allows the use of standard equations needed for the calculation of magnitude. These equations can be obtained directly from the experiment by measuring the internal temperature of the anodic film. In cases where the internal cooling is absent during the process of aluminum anodizing, the heat dissipation is determined mainly by heat conductivity and convection. The discharge of heat is an internal process of the oxidized film and therefore the role of the diffusional phenomena in the dissipation of heat is small. The thick and hard oxide films can be obtained on the surface of aluminum only through the provision of a fairly high value of heat removal coefficient which is determined from the speed of electrolyte agitation.

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L 12677-63
ACCESSION NR: AP3000645

When calculating the speed of electrolyte agitation, other factors such as temperature and composition of the electrolyte, the size of bath and stirrer, current density, the position of the sample in the electrolizer and the uniformity of mixing must be taken into consideration. "The authors express their gratitude to P. G. Romankov for discussion of the materials used in this study." Orig. art. has: 1 table, 7 graphs and several derivations.

ASSOCIATION: none

SUBMITTED: 29Dec61 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: CH NO REF SOV: 006 OTHER: 001

Card 2/2

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; ANDREYEVA, G.P.

Structure and properties of the electrodeposits of zinc-cadmium alloys. Zhur.prikl.khim. 36 no.5:572-578 My '63. (MIRA 16:5)

1. Kafedra elektrokhimii Leningradskogo tekhnologicheskogo instituta imeni Lensoveta.
(Zinc-cadmium alloys) (Electroplating)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; ANDREYEVA, G.P.

Structure and properties of the electrodeposited zinc-tin alloy. Zhur.prikl.khim. 36 no.3:671-673 My '63. (MIRA 16:5)
(Zinc-tin alloys) (Electroplating)

ANDREYEVA, G.P.; FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; PAL'MSKAYA, I.Ya.

Structure and physicochemical properties of electrolytic brass. Zhur.prikl.khim. 36 no.6:1283-1290 Je '63. (MIRA 16:8)
(Brass)

L 17758-63 EPR/EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD/ESD-3 Ps-4/Pr-4
WW/JG/WH/AH/HM/K

ACCESSION NR: AP3006179 S/0080/63/036/007/1461/1462

AUTHORS: Fedot'yev, N. P.; Vyacheslavov, P. N.; Andreeva, G. P.; [redacted]

TITLE: A method for obtaining porous electrolyte deposits

SOURCE: Zhurnal prikladnoy khimii, v. 36, no. 7, 1963, 1461-1462

TOPIC TAGS: Electrodeposition, porous electrolyte deposit, cobalt, colloidal graphite, PA-5 porometer

ABSTRACT: By adding colloidal graphite (12 g/liter), porous cobalt deposits, tightly bonded to the base, were obtained. A recently developed method for evaluating porosity, involving pressing mercury in the PA-5 porometer (Fedot'yev et al., ZhL 6, 1959), showed that the pore volume of the cobalt deposits was 6.5% of the total surface, and the area of the lateral pore surface approximately 1700 times as great as the geometric surface of the sample. The method described should be applicable to other metals as well. Orgi. art. has: 1 table.

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FEDOT'YEV, N.P.; IL'IN, V.A.

Electrodeposition of silver from noncyanide electrolytes.
Zhur. prikl. khim. 36 no.8:1763-1768 Ag '63. (MIRA 16:11)

ANDREYEVA, G.P.; FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.

Structure and physicochemical properties of a copper-nickel electrolytic alloy. Zhur. prikl. khim. 36 no.9:1932-1936 D '63. (MIRA 17:1)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; KASHCHEYEVA, Ye.A.

Study of some "structure-sensitive" properties of Ni-Co galvanic alloys. Zhur. prikl. khim. 36 no.11:2474-2477 N '63. (MIRA 17:1)

ACCESSION NR: AP4041796 S/0080/64/037/007/1469/1477

AUTHOR: Andreyeva, G. P.; Fedot'yev, N. P.; Vyacheslavov, P. M.

TITLE: Physicochemical properties and structure of Au-Cu electrolytic alloy

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 7, 1964, 1469-1477

TOPIC TAGS: gold copper alloy, electrolytic gold copper alloy, gold copper alloy electrodeposition, gold copper alloy structure, gold copper alloy property

ABSTRACT: An experimental study of the properties of an electrolytically deposited Au-Cu alloy has shown that electrolysis in a cyanide electrolyte containing 5.5—0.2 g/ℓ Au, 0.2—5.5 g/ℓ Cu, and 5.5 g/ℓ KCN at a temperature of approx 60C and a current density of 0.15 amp/dm^3 produces in 1 hr satisfactory deposits 6—8μ thick. The deposit consists of a solid solution with a crystal lattice of gold. The fresh deposits have a phase composition differing greatly from that of the Au-Cu metallurgical alloy. Depending on the gold content and the current density it may have, instead of a single phase, two

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ACCESSION NR: AP4041796

or even three phases, i.e., solid solutions of different composition, Au Cu3 and Au Cu intermetallic compounds, and very finely dispersed copper particles. However, as a result of natural or artificial aging, the phase structure of the alloy changes and becomes rather similar to that of the metallurgical Au-Cu alloy. The resistivity of electrodeposited alloys is roughly of the same magnitude and has the same composition dependence as those of metallurgical alloys. The microhardness of electrolytic alloys is much higher than that of metallurgical alloys, although in both types of alloys the composition dependence of microhardness follows the same pattern. Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 08Apr63 ATD PRESS: 3074 ENCL: 00

SUB CODE: MM NO REF SOV: 006 OTHER: 002

Card 2/2

L 23514-65 EPR/EWT(m)/EWP(b)/EWP(t) Ps-4 IJP(c) JD
ACCESSION NR: AP4047122 S/0080/64/037/010/2234/2239

AUTHOR: Fedot'yev, N. P.; Grilikhes, S. Ya.; Zil'berman, B. Ya.; Teplen'kiy, I. M.

TITLE: Thickness and dielectric strength of the oxide coatings on aluminum

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 10, 1964, 2234-2239

TOPIC TAGS: aluminum, anodizing, aluminum oxide coating, dielectric strength, coating thickness, porosity

ABSTRACT: The effects of heating conditions while anodizing aluminum on the thickness, weight, and dielectric strength of the coatings formed were investigated. The dielectric strength of 15-100 micron thick compact anodic coatings decreased exponentially with decreasing thickness and was practically independent of anodizing conditions. The dielectric strength of thicker coatings was determined by the properties of the air space in the porous layer of the film. When anodizing aluminum in H_2SO_4 electrolyte at 10 and 20C the thickness of the oxide

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ACCESSION NR: AP4047122

coating, its weight and gain in weight, increased proportionally to the amount of the current passed through only if the solution were intensely agitated. A coating about 24 microns thick was formed on passing 1 amp. hr./dm^2. The observed deviations from the linear relationships mentioned were caused by heat processes which increased the dissolution of the coating by the electrolyte, and in turn increased the porosity of the coating. The solution of the oxide coatings was determined by the length of time the anode was in the electrolyte, and by the temperature of the electrolyte and of the surface of the coating, which was in turn determined by the current strength and the coefficient of the heat transfer. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 31Oct62 ENCL: 00

SUB CODE: MM NO REF SOV: 008 OTHER: 000

Card 2/2

FEDOT'YEV, N.P.

Review of some investigations on the properties of electrolytic metals. Trudy LPI no.239:22-38 '64.
(MIRA 17:10)

FEDOT'YEV, Nikolay Pavlovich; VYACHESLAVOV, Petr Mikhaylovich; BORKAT, Galina Konstantinovna; IVANOVA, A.M., red.

[Technology of the deposition of an electrolytic silver-copper alloy] Tekhnologiia osazhdeniia elektroliticheskogo splava serebro-med.'. Leningrad, 1964. 8 p. (MIRA 18:2)

FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.; GRIBEL', V.I.

Change in the hardness of electrolytic silver with time. Zhur. prikl. khim. 37 no.6:1372-1376 Je '64. (MIRA 18:3)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

ANDREYEVA, G.P.; FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.

Physicochemical properties and structure of the Au-Cu electrolytic alloy. Zhur.prikl.khim. 37 no.7:1469-1477 Jl '64.
(MIRA 18:4)

L 55977-65 EWT(m)/EPF(c)/EWP(1)/EWA(d)/EPR/EWP(t)/EWP(b) Pe-4 IJP(c)
JD/WB

ACCESSION NR: AP5011814 UR/0080/65/038/004/0834/0839
621.357+546.621

AUTHOR: Fedot'yev, N. P.; Grilikhes, S. Ya.; Berkman, Ye. A.; Zil'berman, B. Ya.

TITLE: Formation of passive oxide films during electropolishing of aluminum

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 4, 1965, 834-839

TOPIC TAGS: aluminum, electrolytic polishing, electric double layer

ABSTRACT: Electropolishing of A00 aluminum was carried out in an electrolyte containing (in wt. %): H_3PO_4, 45; H_2SO_4, 35; CrO_3, 4; H_2O, 16. The state of the aluminum surface after the anodic treatment was studied by measuring the impedance characteristics (capacity of the electric double layer, transition resistance at the metal-solution interface), the thickness of the barrier layer, and the reflectivity as a function of the conditions of electrolysis. It was found that the electropolishing process in acid and also in alkaline electrolytes (15% Na_3PO_4 and 25% Na_2CO_3) involves the formation on the metal surface of a passivating film consisting of a barrier layer and outer porous layer. A considerable increase in the reflectivity of the metal occurs at the very start of the electrolysis, when the barrier

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L 55977-65
ACCESSION NR: AP5011814

layer, which protects the metal from corrosion by the electrolyte, is formed. The electropolishing process is associated with a decrease in capacity and increase in the transition resistance, which changes symbatically with the thickness of the barrier layer. The conditions of electrolysis affect the polishing to the extent that they affect the process of formation of the thin passivating oxide film on the anode. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 27Apr63 ENCL: 00 SUB CODE: MM

NO REF SOV: 011 OTHER: 005

Card 2/2

GNUSIN, N.P.; KOVARSKIY, N.Ya.; FEDOT'YEV, N.P.

Roughness and polarization curves in the electrodeposition of copper from acid sulfate solutions. Zhur.prikl.khim. 38 no.11:2464-2469 N '65. (MIRA 18:12)

1. Submitted December 4, 1964.

GRIBEL', V.I.; FEDOT'YEV, N.P.; VYACHESLAVOV, P.M.

Change of the mechanical properties of electrolytic copper over a period of time. Elektrokhimiia 1 no.3:364-365 Mr '65. (MIRA 18:12)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

L 46849-66 EWT(m)/EWP(e)/T/EWP(t)/ETI IJP(c) DS/JD/WW/JG/GD/WH

ACC NR: AT6024973 (N) SOURCE CODE: UR/0000/65/000/000/0194/0197

39
B+1

AUTHOR: Andreyeva, G. P.; Fedot'yev, N. P.; Vyacheslavov, P. M.

ORG: none

TITLE: Electrodeposition and properties of silver-palladium alloys

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Zashchitnyye metallicheskiye i oksidnyye pokrytiya, korroziya metallov i issledovaniya v oblasti elektrokhimii (Protective metallic and oxide coatings, corrosion of metals, and studies in electrochemistry). Moscow, Nauka, 1965, 194-197

TOPIC TAGS: silver alloy, palladium alloy, electrodeposition

ABSTRACT: The conditions of electrodeposition of Ag-Pd alloys from an electrolyte having LiCl as its main component and some physicochemical properties of these alloys were studied. LiCl and HCl concentrations were found to have a considerable influence on the quality of the deposits. The strongest influence on the composition of the alloys was exerted by the Ag:Pd ratio in the electrolyte. A study of the anodic process showed that carbon and graphite electrodes were best suited for the electrolysis of LiCl solutions. A study of the cathodic process showed that the net polarization curve of deposition of an Ag-Pd alloy is located at more positive potentials than the net polarization curves of deposition of the pure components. X-ray analysis and microhardness and electrical resistance measurements revealed the formation of solid solutions. In deposits containing over 70% Pd, a texture was observed which had an

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L 46849-66

ACC NR: AT6024973 0

appreciable effect on the microhardness. Orig. art. has: 6 figures and 1 table.

SUB CODE: 11,13/07/SUBM DATE: 18Feb64/ ORIG REF: 004/ OTH REF: 002

Card 2/2 blg

ACC NR: AP6035750 SOURCE CODE: UR/0413/66/000/019/0120/0120

INVENTORS: Fedot'yev, N. P.; Vyacheslavov, P. M.; Burkat, G. K.; Volkova, N. V.

ORG: none

TITLE: An electrochemical method for obtaining a binary silver alloy. Class 48, No. 186825 [announced by Leningrad Order of the Workers Red Banner Technological Institute imeni Lensovet (Leningradskiy ordena Trudovogo Krasnogo Znameni tekhnologicheskiy institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 120

TOPIC TAGS: silver, alloy, silver containing alloy, binary alloy, cobalt compound, potassium compound

ABSTRACT: This Author Certificate presents an electrochemical method for obtaining a binary silver alloy from an electrolyte containing silver cyanide complex. To improve the resistance to abrasion, hardness and the resistance to corrosion of the precipitated coatings, the process is conducted at a temperature of 40--45C and at a current density of 0.1--0.5 a/dm^2, while the electrolyte is being mixed. The composition of the electrolyte should include pyrophosphates of cobalt and of potassium in the following proportions of the components (in g/liter): metallic silver -- 0.1--0.4; metallic cobalt -- 2.0--3.2; free potassium pyrophosphate --

100
SUB CODE: 11, 07/ SUBM DATE: 05May65

Card 1/1 UDC: 621.357.7:669.225'25

FEDOT'YEV, P.V.

[Signaling, interlocking control, block systems. Vol.1. Independently-acting signal, staff, semiautomatic block and mechanical interlocking systems] Signalizatsiia, tsentralizatsiia, blokirovka. T.1.Nezavisimo-deistvuiushchaia signalizatsiia. Zhezlovaia sistema. Poluavtomaticheskaia blokirovka i mekhanicheskaia tsentralizatsiia. Moskva, Gos.trans.zhel-dor. izd-vo, 1952. 502 p. (MLRA 6:11)

(Railroads--Signaling)

[redacted]DOT'YEV, Pavel Viktorovich; BAKITO, M.I., redaktor; KHITROV,P.A., tekhnicheskiy redaktor

[Signaling, central control, and block systems and their maintenance] Ustroistva signalizatsii, tsentralizatsii i blokirovki i ikh soderzhanie. Moskva, Gos.transp.zhel-dor. izd-vo, 1956. 430 p. (MLRA 10:1)
(Railroads--Signaling)

FEDOT'YEV, P.V., inzh.

Installation of a new type of locks on interlocking switches and apparatus of the Natalevich system. Avtom. telem. i sviaz' 2 no.9:13 S '58. (MIRA 11:10)

(Railroads--Switches)

FEDOT'YEV, P.V., inzh.

Electric interlocking mechanism. Avtom., telem. i sviaz' 3 no.2: 14-15 F '59. (MIRA 12:4)
(Railroads--Interlocking systems)

FEDOT'YEV, P.V.; MARKEVICH, A.K.

New semiautomatic block system. Avtom.telem. i sviaz' 3 no.3:17-21 Mr '59. (MIRA 12:5)
(Railroads--Signaling--Block system)

FEDOT'YEV, P.V.

Trackside stand for the control of exit semaphores. Avtom.telem. i sviaz' 3 no.10:12-13 O '59. (MIRA 13:2)

1. Starshiy inzhener tekhnicheskogo otdela Glavnogo upravleniya signalizatsii i svyazi Ministerstva putey soobshcheniya.
(Railroads--Signaling)

PHASE I BOOK EXPLOITATION SOV/4254

Fedot'yev, Pavel Viktorovich

Elektromekhanicheskiye ustroystva avtomatiki i telemekhaniki (Electromechanical Devices in Automation and Telemechanics) Moscow, Transzheldorizdat, 1960. 351 p. Errata slip inserted. 8,000 copies printed.

Tech. Ed.: P.A. Khitrov; Ed.: E.I. Rakito.

PURPOSE: This book has been approved by the Ministry of Railroads of the USSR as a textbook for tekhnikums specializing in railroad transportation.

COVERAGE: The book describes the design, assembly and current maintenance of electromechanical train signalling systems now used in the USSR. Controlled manual blocks, mechanical interlockings, staff and control systems are discussed. No personalities are mentioned. There are no references.

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TABLE OF CONTENTS:

FEDOT'YEV, P.V., inzh.

Suggestions of efficiency experts. Avtom.telem. i sviaz' 4 no.11: 42 N '60. (MIRA 13:11)
(Railroads--Signaling--Interlocking systems)

FEDOT'YEV, P.V., inzh.

New relay-type semiautomatic block systems for tracksides and railroad stations. Avtom., telem.i sviaz' 6 no.1:37 Ja '62. (MIRA 15:3)

(Railroads—Signaling—Block system)

FEDOT'YEV, P.V., inzh.

Change in the network connections of route controlling devices with a BPLTs-type semiautomatic block system. Avtom., telem.i sviaz' 6 no.4:42-43 Ap '62. (MIRA 15:4)
(Railroads—Signaling—Block system)

GERMAN, M.I.; FEDOT'YEV, P.V., insh.

Improvement of semiautomatic block system apparatus with polarized line networks. Avtom., telem.i sviaz' 6 no.11:43 N '62. (MIRA 15:11)

1. Veduschiy konstruktor zavoda "Transsignal" (for German).
(Railroads--Signaling--Block system)

FEDOT'YEV, V. P., Engineer

Chief of the Tool Bureau (-1945-)

"Variation in the Hardness of Grinding Wheels and the Manufacture of New Grinding Wheels at the Krasnyy proletariy Plant," Stanki I Instrument, 16, No. 3, 1945

BR-52059019

FEDOT'YEV, V.P.

YUR'YEV, N.M.; VOSKRESENSKIY, B.V., inzhener, retsenzent; FEDOT'YEV, V.P., inzhener, retsenzent; BOGINSKIY, M.N., inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskiy redaktor

[Work organization of a machine shop in a machine building plant] Planirovanie mekhanicheskogo tsekha mashinostroitel'nogo zavoda pri massovom i krupnoseriinom proizvodstve. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 183 p. (MIRA 8:3)
(Machine shops) (Machinery industry)

S/118/61/000/004/002/005
A161/A127

AUTHOR: Fedot'yev, V.P., Engineer

TITLE: Overall mechanization of the machine tool production at the "Krasnyy proletariy" Plant

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 4, 1961, 12 - 16

TEXT: The plant has started the fully mechanized production of a range of 1K62 (1K62) lathes. The mechanization of four plant shops - forging, mechanical, assembling and painting shops, has been carried out during 1958-1960. It is mentioned that the organization of flow-line production is not new for the "Krasnyy proletariy" Plant, it began 15 years ago with ДИП-20М (DIP-20M) lathe. The article describes the equipment and work organization in the four shops. There is a total of 60 flow-lines including four automatic and semiautomatic, 1,200 m conveyers, 2,000 m roller tables and many other handling devices. The conveyers are connecting heating furnaces with stamping presses; 8 of the gas-fired furnaces are fitted with automatic МИР ("MIR", abbreviation for "multichannel impulse regulation") temperature regulators; four automatic saws cut billets in the billeting section. One half of all 1K62 lathes parts is produced by advanced methods -

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Overall mechanization ...

S/118/61/000/004/002/005
A161/A127

pressing from plastics, precision casting with investment molds and die casting, and drop forging. The mechanical shop has 11 piece-production and 30 gang-production lines in which parts are moving on roller tables from machine to machine, small and medium size-parts in boxes. One line of nine machine tools shown in a photo and producing 10 different gears is mentioned as the most efficient one. It has been designed by ENIMS and is the first of its kind in the USSR. There are more than 150 special and unit-head machines, which makes 31% of the total. So-called "hydro-amplifiers" are raising 4-5 atm pressure in the air mains to 125 atm in the clamping fixtures. Gang-fixtures are used on machine tools and permit the working of up to 7 different parts on one machine. Another ENIMS line of 11 machines works 13 different spline shafts. Over 400 different measuring inspection devices include induction pickups. The article includes a description and a photo of the main assembly conveyer, underfloor and floor conveyers, a suspension conveyer that is carrying parts from the store to the assembly shop and unloading automatically at three stations. The tare is directed by operation catches of different length, i.e. catches of certain length are stopping at certain places. Conveyers are used in the painting shop. The result of the mechanization is a 37% output increase and a 30% costs reduction. There are 5 figures.

Card 2/2

LUNEVSKIY, I.I.; GULYAYEV, G.I., inzh., retsenzent; FEDOT'YEV, V.P., inzh., retsenzent; POPOV, S.G., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[How to organize multiple machining at a machinery plant] Kak organizovat' mnogostanochnuiu rabotu na mashinostroitel'nom zavode. Moskva, Mashgiz, 191. 73 p. (MIRA 16:5)
(Machinery industry--Management)

FEDOT'YEV, V. V.

Fedot'yev, V. V. — "Method of Formulating the Concept of "Manufacture" in the Study of the History of the Middle Ages in the Seventh Grade." Min Education RSFSR, Moscow Oblast Pedagogical Inst, Moscow, 1955 (Dissertation for the Degree of Candidate of Pedagogical Sciences)

SO: Knizhnaya Letopis', No1 24, Moscow, Jun 55, pp 91-104

TUMOVA, B.; FEDOVA, D.; PLESNIK, J.

Incidence and spread of a new variant of the type B influenza virus among the population of Czechoslovakia. III. Incidence of type B_1 strains in 1960 and the epidemic of 1961. J. hyg, epidem. 7 no.2: 151-164 '63.

1. Czechoslovak Influenza Centre, Institute of Epidemiology and Microbiology, Prague; Regional Station of Hygiene and Epidemiology, Ostrava.
(INFLUENZA VIRUSES) (ANTIBODIES) (EPIDEMIOLOGY)

FEDOVA, D.; ZELENKOVA, L.

The use of the fluorescent antibody method for the rapid identification of the A2 influenza virus. I. The identification of influenza virus in the epithelial cell sediment of allantoic or amniotic fluid of infected chick embryos. J. hyg. epidem. (Praha) 9 no.2:127-134 '65.

The use of the fluorescent antibody method for the rapid identification of the A2 influenza virus. II. The identification of influenza virus in nasal smears by the fluorescent antibody technique. Ibid.:135-146

1. Institute of Epidemiology and Microbiology, Prague.

ODINETS, B.Yu.; FEDOT'YEV, Yu.P.; SEREBRYANYY, G.M.; SMIRNOV, B.K., otv. red.; TEMKINA, Ye.L., tekhn.red.

[Standards and estimates for building and assembly work] Edinye normy i rastsenki na stroitel'nye, montazhnye i remontno-stroitel'nye raboty 1960 g. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam. No.21. [Making units and details of pipelines and preparing reinforcements] Izgotovlenie uzlov i detalei truboprovodov i podgotovka armatury. 1960. 111 p.
(MIRA 13:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Normativno-issledovatel'skaya stantsiya tresta Yuzhsantekhmontazh (for Odinets). 3. Normativno-issledovatel'skaya stantsiya tresta Uralsantekhmontazh (for Fedot'yev). 4. TSentral'noye normativno-issledovatel'skoye byuro Ministerstva stroitel'stva RSFSR (for Serebryanyy).
(Pipelines)

RASKA,K.; TUMOVA,B.; HELCL,J.; KEDOVA,D.; PIRKOVA,Z.; PECENKA,J.; SKVRNOVA,K.

Annual report of the Czechoslovak Influenza Centre.
J.hyg. epidem. 7 no.3:261-271 '63.

CZECHOSLOVAKIA

TU..OVA, B ; FEDOVA, O; FLESNIK, J; SUCHANEK, M; LUDVIK, J; BOSKOVA, D; VOLENIKOVA, J; PROCHAZKOVA, V.

Prague, Prakticky lekar, No 16, 1963, p 627

"Occurence and Spread of Variants of the Flu Virus Type B in the Czechoslovak Population between 1959-1961."

(8)

TUMOVA, B.; FEDOVA, D.; BOSKOVA, D.; VOLENIKOVA, J.; PROCHAZKOVA, V.; LUDVIK, J.

The incidence and spread of a new variant of type B influenza virus in the population of Czechoslovakia in 1959--1961. II. Properties of the strains isolated. Acta virol. 7 no. 2:156-175 Mr '63.

1. Czechoslovak Influenza Centre, Institute of Epidemiology and Microbiology, Prague, and Laboratory of Electron Microscopy and Experimental Morphology, Czechoslovak Academy of Sciences, Prague.
(INFLUENZA VIRUSES) (VIRUS CULTIVATION) (GUINEA PIGS) (CATTLE) (SHEEP) (INFLUENZA) (MICE) (EPIDEMIOLOGY) (HORSES) (RABBITS) (CARNIVORA) (TISSUE CULTURE) (HEMAGGLUTINATION INHIBITION TESTS) (COMPLEMENT FIXATION) (ANTIGENS) (COMPLEMENT FIXATION TESTS) (NEUTRALIZATION TESTS)

FEDOVA,D. DRASNAR, M.; SVEJDA, J.; PIRKOVA, Z.; SODJA, J.; SYRUCEK, L.

Epidemic of influenza in Czechoslovakia in February-April 1964.
J. hyg. epidem. (Praha) 9 no.1:95-110 '65

1. Institute of Epidemiology and Microbiology, Prague.

FEDRA, E.

Graphic calculation of transportation and tariff norms for forest railroads. p. 242. REVISTA PADURILOR. (Asociatia Stiintifica a Inginerilor si Technicienilor din Rominia si al Ministerului Agriculturii si Silviculturii) Bucuresti. Vol. 71, no. 4, Apr. 1956.

So. East European Accessions List Vol. 5, No. 9 September, 1956

FEDREJEK, Wladyslaw, mgr inz.

Simplified method of designing simple wood parts axially compressed with uniform and complex cross section. Inz i bud 21 no.5:Suppl.:maly por konstr 5 no.3:18-20 My '64.

1. Office of Studies and Typical Design of Industrial Construction, Warsaw.

SIDOCHENKO, T.V.; FEDRULOVA, M.N.

Results of verifying T.A.Duletova's rules for forecasting upper-level cyclones and determining the dates of natural synoptic periods. Trudy TSIP no.87:57-61 '59. (MIRA 12:8)
(Cyclones)

FEDUKIN, Yu.A.

Device for controlling kinematic precision of gears. Stan.i instr. 33 no.5:29-30 My '62. (MIRA 15:5)
(Gearing—Testing)

FEDUKOVICH, N.N., dotsent

Utilization of hydropiperine, a new preparation from Polygonum hydropiper, in preventing obstetrical and gynecological hemorrhages. Sov. med. 24 no. 7:123-126 Jl '60. (MIRA 13:8)

1. Iz kliniki akusherstva i ginekologii lechebnogo fakul'teta (zav. - prof. A.M. Foy) i kafedry farmakologii (zav. - dotsent B.N. Volynskiy) Saratovskogo meditsinskogo instituta (dir. - dotsent B.A. Nikitin).
(HEMOSTATICS) (POLYGONUM) (HEMORRHAGE, UTERINE)

FEDUKOVICH, N.N., kand.med.nauk

Data from a cytological investigation of vaginal smears in uterine fibromyoma before and after therapy [with summary in English]. Akush. i gin. 35 no.1:81-84 Ja-F '59. (MIRA 12:2)

1. Iz akushersko-ginekologicheskoy kliniki (zav. - prof A.M. Foy) lechebnogo fakul'teta Saratovskogo meditsinskogo instituta.
(LEIOMYOMA, surgery,
uterus, preop. & postop. vaginal smear cytol. (Rus))
(UTERUS NEOPLASMS, surgery,
leiomyoma, preop. & postop. vaginal smear cytol. (Rus))
(VAGINAL SMEARS,
in uterine myoma, postop. changes. (Rus))

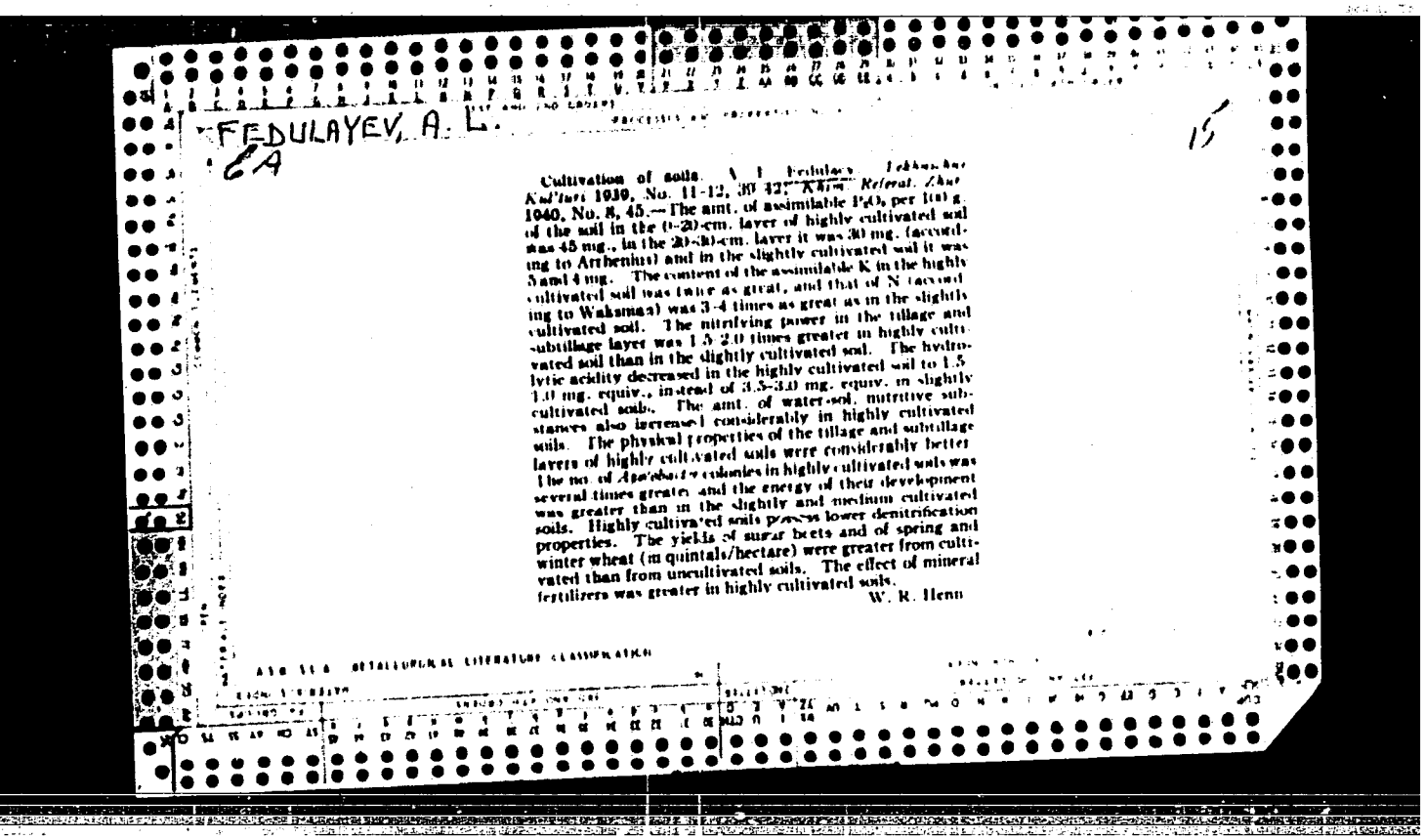
FEDUKOVICH, V. S.

Nechiporenko, P. K. and Fedukovich, V. S. (USSR). (Gravitational Variometer). Russian Patent 99958, issued July 31,1933.
Applies to apparatus for damping oscillations of beam. Beam is made in form of a hollow cylinder suspended to a thread passing along axis of beam; beam is provided with a metallic ring placed in field of action of magnets or electromagnets.
Claim allowed - 1.

BLAZHEVSKIY, Ye.V., dvazhdy Geroy Sotsialisticheskogo Truda; VOVCHENKO, I.V., kand. sel'khoz. nauk, zasl. agronom Ukr.SSR; VOROB'YEV, N.Ye., st. nauchn. sotr.; GESHELE, E.E., doktor biol. nauk, prof.; ZUBRITSKIY, A.A., agronom; KISEL'GOF, Z.S., inzh., zasl. mekhanizator sel'skogo khoz. Ukr.SSR; KLYUCHKO, P.F., kand. sel'khoz. nauk; KORCHAGIN, A.Ye.; LEBEDEV, Ye.M., st. nauchn. sotr.; NASYPAYKO, V.M., kand. sel'khoz.nauk; PIKUS, G.P., kand. sel'khoz.nauk; REKACH, V.N., doktor sel'khoz. nauk, prof.; SPIVAK, I.I., zootekhnik; TEMCHENKO, L.V., kand. sel'khoz. nauk; FEDULAYEV, A.A., agronom; YAKOVENKO, V.A., kand. tekhn.nauk; KITAYEV, I.A., kand. sel'khoz. nauk, red.; MUSIYKO, A.S., akademik, red.; VINNITSKIY, S.P., red.; MOLCHANOVA, T.N., tekhn. red.

[For high corn yields] Za bol'shuiu kukuruzu. [By] E.V. Blazhevskii i dr. Odessa, Odesskoe knizhnoe izd-vo, 1962. 173 p. (MIRA 16:7)

1. Zven'yevoy kolkhoza im. Gor'kogo Kotovskogo rayona na Odesshchine (for Blazhevskiy). 2. Glavnyy agronom sovkhoza "Bessarabskiy" (for Korchagin). 3. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Musiyko).
(Ukraine--Corn (Maize))



FEDULAYEV, A. L.
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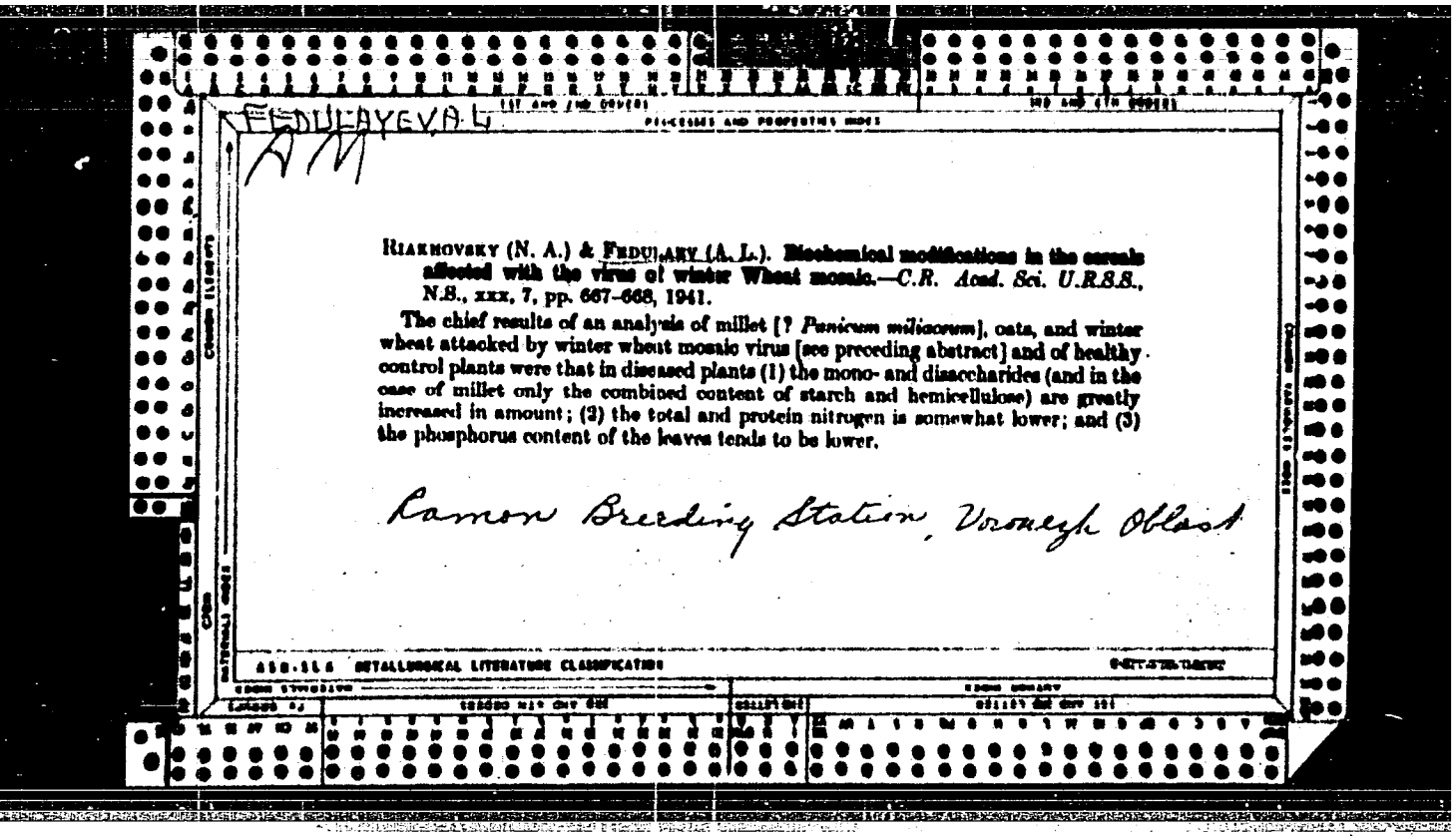
Cultivation of soils. A. L. Fedulaev. *Izvestiya Kul'tury* 1939, No. 11-12, 39-42; *Referat. Zhur.* 1940, No. 8, 45.—The amt. of assimilable P_2O_5 per 100 g. of the soil in the (0-20)-cm. layer of highly cultivated soil was 45 mg., in the 20-30-cm. layer it was 30 mg. (according to Arrhenius) and in the slightly cultivated soil it was 5 and 4 mg. The content of the assimilable K in the highly cultivated soil was twice as great, and that of N (according to Wakaman) was 3-4 times as great as in the slightly cultivated soil. The nitrifying power in the tillage and subtillage layer was 1.5-2.0 times greater in highly cultivated soil than in the slightly cultivated soil. The hydrolytic acidity decreased in the highly cultivated soil to 1.5-1.0 mg. equiv., instead of 3.5-3.0 mg. equiv. in slightly cultivated soils. The amt. of water-sol. nutritive substances also increased considerably in highly cultivated soils. The physical properties of the tillage and subtillage layers of highly cultivated soils were considerably better. The no. of *Azotobacter* colonies in highly cultivated soils was several times greater and the energy of their development was greater than in the slightly and medium cultivated soils. Highly cultivated soils possess lower denitrification properties. The yields of sugar beets and of spring and winter wheat (in quintals/hectare) were greater from cultivated than from uncultivated soils. The effect of mineral fertilizers was greater in highly cultivated soils.

W. R. Henn

BAZHURA, Panteley Semenovich; SERGIYENKO, Ivan Terent'yevich [Serhiienko, I.T.], agronom, Geroy Sotsialisticheskogo Truda; ZYUZ'KO, Yevgeniy Petrovich; FEDULAYEV, Andrey Luk'yanovich; VINNITSKIY, S.[Vinnyts'kyi,S.], red.; MOLCHANOVA, T., tekhn. red.

[Additional crops] Dodatkovi vrozhai. Odesa, Odes'ke knyzhkove vyd-vo, 1959. 22 p. (MIRA 15:7)

1. Predsedatel' kolkhoza "Bat'kivshchyna" Kotovskogo rayona (for Bazhura). 2. Glavnyy agronom kolkhoza "Ukraina" Odesskogo rayona (for Zyuz'ko). 3. Glavnyy inspektor po rasteniyevodstvu Odesskogo oblastnogo upravleniya sel'skogo khokhozyaystva (for Fedulayev).
(Odessa Province--Forage plants)



FEDULAYEVA L

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RIAKHOVSKY (N. A.) & FEDULAEV (A. L.). **Biochemical modifications in the cereals affected with the virus of winter Wheat mosaic.**—*C.R. Acad. Sci. U.R.S.S.*, N.S., xxx, 7, pp. 667–668, 1941.

The chief results of an analysis of millet [? *Panicum miliaceum*], oats, and winter wheat attacked by winter wheat mosaic virus [see preceding abstract] and of healthy control plants were that in diseased plants (1) the mono- and disaccharides (and in the case of millet only the combined content of starch and hemicellulose) are greatly increased in amount; (2) the total and protein nitrogen is somewhat lower; and (3) the phosphorus content of the leaves tends to be lower.

Ramon Breeding Station, Voronezh Oblast

FEDULEYEV, M.G.

Reduction of losses of petroleum and petroleum products is an urgent problem of the economic regions. Neft. khoz. 35 no.8:50-54 Ag '57.
(Petroleum industry) (MIRA 10:11)

FEDULIN, F.S. (Moskva)

Processing and assembly of pockets. Shvein. prom. no.4 28-30 Jl-Ag '62. (MIRA 1[illegible]6)
(Tailoring)